

PATENT
Attorney Docket No. 01-4008
Application Serial No. 10/090,522

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1. (original) A method for assessing a call center, said method comprising the steps of:
 - gathering and studying information regarding a call flow of the call center's interactive voice response (IVR) system;
 - developing a coding sheet for the call center, the coding sheet summarizing a call to the call center, including interactions between a caller and the IVR system and interactions between the caller and a live agent;
 - tabulating a plurality of calls to the call center on the coding sheet based on notes and/or recordings of entire calls, from beginning to end;
 - analyzing the tabulated coding sheet to determine areas of the IVR system that can be improved; and
 - generating an analysis report itemizing the areas of the IVR system that can be improved and suggesting ways to improve those areas,
 - wherein said tabulating step includes noting on the coding sheet, for each call, menu selections made by the caller in response to a prompt from the IVR system and a summary of interactions between the caller and a live agent.
2. (original) A method according to Claim 1, further comprising the step of summarizing the tabulated coding sheet to generate statistical data on the plurality of calls to the call center.

PATENT
Attorney Docket No. 01-4008
Application Serial No. 10/090,522

3. (original) A method according to Claim 1, wherein the analysis report generated in said generated step includes:

- noting whether a live agent performed functions that the IVR system can perform,
- noting whether a live agent performed functions that the IVR system can be re-designed to perform,
- noting whether and how a call was transferred to more than one agent,
- noting at what point a call is terminated, and
- noting timing information for each call.

4. (original) A method according to Claim 1, wherein the analysis report generated in said generating step includes a suggestion to change a menu tree of the IVR system.

5. (original) A method according to Claim 1, wherein the analysis report generated in said generating step includes at least one of:

- a suggestion to re-word or re-phrase a prompt given by the IVR system,
- a suggestion to re-word or re-phrase a menu selection given by the IVR system,
- a suggestion to re-route a destination of a menu selection of the IVR system,
- a suggestion to enforce policies of the call center, in regard to action taken by an agent,
- a suggestion to re-engineer the IVR system to automate a function that is not currently available in the IVR system, and
- a suggestion to re-engineer the IVR system to provide a speech recognition option.

6. (original) A method for assessing a call center, said method comprising the steps of:

- developing a coding sheet for the call center, the coding sheet summarizing paths a caller may take during a call to the call center, including interactions between the caller and an

PATENT
Attorney Docket No. 01-4008
Application Serial No. 10/090,522

automated IVR system and interactions between the caller and a live agent;

tabulating on the coding sheet, for each call of a plurality of calls to the call center, events that occurred during the call;

analyzing the tabulated coding sheet to determine areas of the IVR system that can be improved; and

generating an analysis report suggesting ways to improve the areas determined in said analyzing step.

7. (original) A method according to Claim 6, wherein said tabulating step is performed from notes taken by an analyst during live calls, while the analyst is listening to the calls.

8. (original) A method according to Claim 6, wherein said tabulating step is performed from recordings of calls.

9. (original) A method according to Claim 6, wherein the analysis report generated in said generating step includes a suggestion to change a menu tree of the IVR system.

10. (original) A method according to Claim 6, wherein the analysis report generated in said generating step includes at least one of:

- a suggestion to re-word or re-phrase a prompt given by the IVR system,
- a suggestion to re-word or re-phrase a menu selection given by the IVR system,
- a suggestion to re-route a destination of a menu selection of the IVR system,
- a suggestion to enforce policies of the call center, in regard to action taken by an agent,
- a suggestion to re-engineer the IVR system to automate a function that is not currently available in the IVR system, and
- a suggestion to re-engineer the IVR system to provide a speech recognition option.

PATENT
Attorney Docket No. 01-4008
Application Serial No. 10/090,522

11. (currently amended) A method of assessing an automated call routing system's performance, the routing system being structured to present a caller calling into the automated call routing system with a call that includes an interactive voice response (IVR) portion and, at an option of the caller, an ~~caller/agent~~ agent-caller dialog portion, said method comprising the steps of:

- monitoring calls coming into the automated call routing system;
- recording end-to-end calls from among the calls coming into the automated call routing system;
- transcribing a sequence of events for the recorded calls, including events occurring in the IVR portion and in the ~~caller/agent~~ agent-caller dialog portion, to identify predetermined call events of interest;
- analyzing the transcribed calls to infer a complete event sequence of each of the recorded calls; ~~and~~
- calculating parameters corresponding to cost effectiveness and usability of the automated call routing system, based at least in part upon information provided to the caller during the IVR portion; ~~and~~
- determining areas of the automated call routing system that can be improved and suggesting ways of improvement, based at least in part on the calculated parameters.

12. (currently amended) A method according to Claim 11, wherein the cost effectiveness parameter is measured in terms of agent seconds saved by a service or services capable of being performed in the IVR portion of a call actually being performed in the IVR portions of calls rather than in the caller/agent portions of calls, agent seconds saved being defined as a difference between an amount of time it would normally take for an agent to provide a service to a caller in the ~~caller/agent~~ agent-caller portion and an amount of time the service would have taken had the service been performed in the IVR portion.

PATENT
Attorney Docket No. 01-4008
Application Serial No. 10/090,522

13. (original) A method according to Claim 11, wherein said recording step occurs at a site remotely located from the automate call routing system.

14. (currently amended) An apparatus operable to assess an automated call routing system's performance, the routing system being structured to present a caller calling into the automated call routing system with a call that includes an interactive voice response (IVR) portion and, at an option of the caller, a ~~caller/agent~~ agent-caller dialog portion, said apparatus comprising:

means for monitoring calls coming into the automated call routing system;

means for recording end-to-end calls from among the calls coming into the automated call routing system;

means for transcribing a sequence of events of each of the recorded calls, including events occurring in the IVR portion and in the caller/agent dialog portion, to identify predetermined call events of interest;

means for analyzing the transcribed calls to infer a complete event sequence of each of the recorded calls; and

means for calculating performance parameters corresponding to cost effectiveness and usability of the automated call routing system, based at least in part upon what, if any, information was obtained by the caller during the IVR portion; and

means for determining areas of the automated call routing system that can be improved and suggesting ways of improvement, based at least in part upon the calculated performance parameters.

15. (original) An apparatus according to Claim 14, wherein the cost effectiveness parameter is measured in terms of agent seconds saved by a service or services capable of being performed in the IVR portion of a call actually being performed in the IVR portions of calls rather than in the caller/agent portions of calls, agent seconds saved being defined as a difference between an amount of time it would normally take for an agent to provide a service to a caller in

PATENT
Attorney Docket No. 01-4008
Application Serial No. 10/090,522

the caller/agent portion and an amount of time the service would have taken had the service been performed in the IVR portion.

16. (original) An apparatus according to Claim 14, wherein said means for recording is located at a site remote from the automate call routing system.

17. (currently amended) A system for assessing an automated call routing system's performance, the routing system being structured to present a caller calling into the automated call routing system with a call that includes an interactive voice response (IVR) portion and, at an option of the caller, an caller/agent dialog portion, said system being operable to:

monitor calls coming into the automated call routing system;

record end-to-end calls from among the calls coming into the automated call routing system;

transcribe a sequence of events for the recorded calls, including events occurring in the IVR portion and in the ~~caller/agent~~ agent-caller dialog portion, to identify predetermined call events of interest;

analyze the transcribed calls to infer a complete event sequence of each of the recorded calls; and

calculate parameters corresponding to cost effectiveness and usability of the automated call routing system, based at least in part upon information obtained by the caller during the IVR portion; and

determine areas of the automated call routing system that can be improved and suggesting ways of improvement, based at least in part on the calculated parameters.

18. (currently amended) A system according to Claim 17, wherein the cost effectiveness parameter is measured in terms of agent seconds saved by a service or services capable of being performed in the IVR portion of a call actually being performed in the IVR

PATENT
Attorney Docket No. 01-4008
Application Serial No. 10/090,522

portions of calls rather than in the ~~caller/agent~~ agent-caller portions of calls, agent seconds saved being defined as a difference between an amount of time it would normally take for an agent to provide a service to a caller in the ~~caller/agent~~ agent-caller portion and an amount of time the service would have taken had the service been performed in the IVR portion.

19. (original) A system according to Claim 17, wherein recording of the end-to-end calls occurs at a site remotely located from the automate call routing system.

20. (currently amended) A computer program product embodying a program for implementing a method for assessing an automated call routing system's performance, the routing system being structured to present a caller calling into the automated call routing system with a call that includes an interactive voice response (IVR) portion and, at an option of the caller, an ~~caller/agent~~ agent-caller dialog portion, said computer program product comprising code for:

monitoring calls coming into the automated call routing system;

recording end-to-end calls from among the calls coming into the automated call routing system;

transcribing a sequence of events for the recorded calls, including events occurring in the IVR portion and in the ~~caller/agent~~ agent-caller dialog portion, to identify predetermined call events of interest;

analyzing the transcribed calls to infer a complete event sequence of each of the recorded calls; and

calculating parameters corresponding to cost effectiveness and usability of the automated call routing system, based at least in part upon information obtained by the caller during the IVR portion; and

determining areas of the automated call routing system that can be improved and suggesting ways of improvement, based at least in part on the calculated parameters.

PATENT
Attorney Docket No. 01-4008
Application Serial No. 10/090,522

21. (currently amended) A computer program product according to Claim 20, wherein the cost effectiveness parameter is measured in terms of agent seconds saved by a service or services capable of being performed in the IVR portion of a call actually being performed in the IVR portions of calls rather than in the ~~caller/agent~~ agent-caller portions of calls, agent seconds saved being defined as a difference between an amount of time it would normally take for an agent to provide a service to a caller in the ~~caller/agent~~ agent-caller portion and an amount of time the service would have taken had the service been performed in the IVR portion.

22. (original) A computer program product according to Claim 20, wherein recording of the end-to-end calls occurs at a site remotely located from the automate call routing system.